

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD CENTRAL COAST REGION,  
MONITORING AND REPORTING PROGRAM NO. RB3-2004-0028  
FOR  
MODERNIZED MORRO BAY POWER PLANT  
UNITS 1 AND 2  
SAN LUIS OBISPO COUNTY**

**Reason For Required Monitoring Reports**

The Regional Board is requiring this Monitoring and Reporting Program based on the Discharger's Report of Waste Discharge, which was submitted as an application for an NPDES permit. The purpose of this Monitoring and Reporting Program is to assure compliance with the State Thermal Plan, the State Ocean Plan, the Central Coast Basin Plan, and federal regulations; to assess any impacts of the discharge on receiving waters; and to ensure compliance with the effluent limitations and other provisions Board Order No. RB3-2004-0028. **Note that failure to submit reports for NPDES permits may result in assessment of mandatory minimum penalties.**

**Influent Monitoring**

A sampling station shall be established at a point upstream of any treatment process where representative samples of the influent can be obtained. Intake samples shall be coordinated so as to sample the same water mass (intake sampling time plus plant and conduit detention time yields discharge sampling time). The following shall constitute the influent monitoring program:

| <b>Parameter</b>          | <b>Units</b>   | <b>Type of Sample</b> | <b>Frequency</b>                |
|---------------------------|----------------|-----------------------|---------------------------------|
| Temperature               | <sup>o</sup> F | Metered               | Continuously <sup>1</sup>       |
| pH                        | -              | Grab                  | Quarterly                       |
| Dissolved Oxygen          | mg/l           | Grab                  | Quarterly                       |
| Suspended Solids          | mg/l           | Grab                  | See Below <sup>2</sup>          |
| Antimony                  | ug/l           | Grab                  | Quarterly/Annually <sup>3</sup> |
| Arsenic                   | ug/l           | Grab                  | Quarterly/Annually              |
| Cadmium                   | ug/l           | Grab                  | Quarterly/Annually              |
| Total Chromium            | ug/l           | Grab                  | Quarterly/Annually              |
| Copper                    | ug/l           | Grab                  | Quarterly/Annually              |
| Cyanide                   | ug/l           | Grab                  | Quarterly/Annually              |
| Lead                      | ug/l           | Grab                  | Quarterly/Annually              |
| Mercury                   | ug/l           | Grab                  | Quarterly/Annually              |
| Nickel                    | ug/l           | Grab                  | Quarterly/Annually              |
| Silver                    | ug/l           | Grab                  | Quarterly/Annually              |
| Selenium                  | ug/l           | Grab                  | Quarterly/Annually              |
| Titanium                  | ug/l           | Grab                  | Quarterly/Annually              |
| Zinc                      | ug/l           | Grab                  | Quarterly/Annually              |
| Non Chlorinated Phenolics | ug/l           | Grab                  | Quarterly/Annually              |
| Chlorinated Phenolics     | ug/l           | Grab                  | Quarterly/Annually              |
| Ammonia (as N)            | ug/l           | Grab                  | Quarterly/Annually              |

<sup>1</sup>In the event continuous temperature measurement systems are temporarily inoperative, an alternate means of measurement or calculating providing equivalent information may be used during this period.

<sup>2</sup>When suspended solids effluent analysis or observations of water quality conditions in Morro Bay indicate noncompliance may be due to intake water quality, concurrent intake samples shall be collected to verify such is the case.

<sup>3</sup>Sampling frequency listed as Quarterly/Annually is quarterly for the first year and annually thereafter unless otherwise directed by the Executive Officer. approved by the Executive Officer based on sampling results.

### Intake Structure Monitoring

The Discharger shall measure sediment deposition at the intake structures on an annual basis, as required by Provision D.9. of Order R3-2004-0028. The Discharger shall dredge as necessary to eliminate sediment buildup at intake structures and shall routinely clean bar racks as necessary to maintain bar rack approach velocities as close as practicable to design velocities. The Discharger shall obtain any required federal or state permits or certification prior to dredging. A summary of these efforts shall be included in annual monitoring reports submitted to the Regional Board.

### Effluent Monitoring For Discharge 001

| Constituent   | Units          | Type of Sample | Frequency                                     |
|---|----------------|----------------|---|
| Temperature   | <sup>0</sup> F | Metered        | Continuous <sup>1</sup>                       |
| pH  | -              | Grab           | Quarterly                                     |
| Dissolved Oxygen  | mg/l           | Grab           | Quarterly                                     |
| Suspended Solids  | mg/l           | Grab           | Quarterly                                     |
| Arsenic   | ug/l           | Grab           | Quarterly/Annually                            |
| Antimony  | mg/l           | Grab           | Quarterly/Annually                            |
| Cadmium   | ug/l           | Grab           | Quarterly/Annually                            |
| Total Chromium  | ug/l           | Grab           | Quarterly/Annually                            |
| Copper  | ug/l           | Grab           | Quarterly/Annually                            |
| Lead  | ug/l           | Grab           | Quarterly/Annually                            |
| Mercury   | ug/l           | Grab           | Quarterly/Annually                            |
| Nickel  | ug/l           | Grab           | Quarterly/Annually                            |
| Selenium  | ug/l           | Grab           | Quarterly/Annually                            |
| Silver  | ug/l           | Grab           | Quarterly/Annually                            |
| Titanium  | ug/l           | Grab           | Quarterly/Annually                            |
| Zinc  | ug/l           | Grab           | Quarterly/Annually                            |
| Cyanide   | ug/l           | Grab           | Quarterly/Annually                            |
| Total Chlorine Residual (For intermittent chlorine sources, see Ocean Plan) | ug/l           | Grab           | At least twice during each chlorinating cycle |
| Ammonia (as N)  | ug/l           | Grab           | Quarterly                                     |

|                                      |      |      |                           |
|--------------------------------------|------|------|---------------------------|
| Chronic Toxicity <sup>4</sup>        | TUc  | Grab | Quarterly                 |
| Phenolic Compounds (non-chlorinated) | ug/l | Grab | Quarterly/Annually        |
| Chlorinated Phenolics                | ug/l | Grab | Quarterly/Annually        |
| Endosulfan                           | ug/l | Grab | Permit cycle <sup>2</sup> |
| Endrin                               | ug/l | Grab | Permit cycle              |
| HCH*                                 | ug/l | Grab | Permit cycle              |
| Acrolein                             | mg/l | Grab | Permit cycle              |
| Bis(2-chloroethoxy) methane          | mg/l | Grab | Permit cycle              |
| Bis(2-chloroisopropyl) ether         | mg/l | Grab | Permit cycle              |
| Chlorobenzene                        | mg/l | Grab | Permit cycle              |
| di-n-butyl phthalate                 | mg/l | Grab | Permit cycle              |
| Dichlorobenzenes*                    | mg/l | Grab | Permit cycle              |
| Diethyl phthalate                    | mg/l | Grab | Permit cycle              |
| Dimethyl phthalate                   | g/l  | Grab | Permit cycle              |
| 4,6-dinitro-2-methylphenol           | mg/l | Grab | Permit cycle              |
| 2,4-dinitrophenol                    | mg/l | Grab | Permit cycle              |
| Ethylbenzene                         | mg/l | Grab | Permit cycle              |
| Fluoranthene                         | mg/l | Grab | Permit cycle              |
| Hexachlorocyclopentadiene            | mg/l | Grab | Permit cycle              |
| Nitrobenzene                         | mg/l | Grab | Permit cycle              |
| Thallium                             | mg/l | Grab | Permit cycle              |
| Toluene                              | g/l  | Grab | Permit cycle              |
| Tributyltin                          | ug/l | Grab | Permit cycle              |
| 1,1,1-trichloroethane                | g/l  | Grab | Permit cycle              |
| Acrylonitrile                        | ug/l | Grab | Permit cycle              |
| Aldrin                               | ng/l | Grab | Permit cycle              |
| Benzene                              | ug/l | Grab | Permit cycle              |
| Benzidine                            | ug/l | Grab | Permit cycle              |
| Beryllium                            | ug/l | Grab | Permit cycle              |
| Bis(2-chloroethyl) ether             | ug/l | Grab | Permit cycle              |
| Bis(2-ethylhexyl) phthalate          | ug/l | Grab | Permit cycle              |
| Carbon tetrachloride                 | ug/l | Grab | Permit cycle              |
| Chlordane*                           | ng/l | Grab | Permit cycle              |
| Chlorodibromomethane                 | ug/l | Grab | Permit cycle              |
| Chloroform                           | ug/l | Grab | Permit cycle              |
| DDT*                                 | ng/l | Grab | Permit cycle              |
| 1,4-dichlorobenzene                  | ug/l | Grab | Permit cycle              |
| 3,3'-dichlorobenzidine               | ug/l | Grab | Permit cycle              |
| 1,2-dichloroethane                   | mg/l | Grab | Permit cycle              |
| 1,1-dichloroethylene                 | mg/l | Grab | Permit cycle              |
| Dichlorobromomethane                 | mg/l | Grab | Permit cycle              |
| Dichloromethane                      | mg/l | Grab | Permit cycle              |

|                           |      |      |              |
|---------------------------|------|------|--------------|
| 1,3-dichloropropene       | mg/l | Grab | Permit cycle |
| Dieldrin                  | ng/l | Grab | Permit cycle |
| 2,4-dinitrotoluene        | ug/l | Grab | Permit cycle |
| 1,2-diphenylhydrazine     | ug/l | Grab | Permit cycle |
| Halomethanes*             | mg/l | Grab | Permit cycle |
| Heptachlor*               | ug/l | Grab | Permit cycle |
| Heptachlor epoxide        | ug/l | Grab | Permit cycle |
| Hexachlorobenzene         | ng/l | Grab | Permit cycle |
| Hexachlorobutadiene       | ug/l | Grab | Permit cycle |
| Hexachloroethane          | ug/l | Grab | Permit cycle |
| Isophorone                | g/l  | Grab | Permit cycle |
| N-nitrosodimethylamine    | ug/l | Grab | Permit cycle |
| N-nitrosodi-N-propylamine | ug/l | Grab | Permit cycle |
| N-nitrosodiphenylamine    | ug/l | Grab | Permit cycle |
| PAHs*                     | ug/l | Grab | Permit cycle |
| PCBs*                     | ng/l | Grab | Annually     |
| TCDD equivalents*         | pg/l | Grab | Permit cycle |
| 1,1,2,2-tetrachloroethane | Mg/l | Grab | Permit cycle |
| Tetrachloroethylene       | Mg/l | Grab | Permit cycle |
| Toxaphene                 | Ng/l | Grab | Permit cycle |
| Trichloroethylene         | Ug/l | Grab | Permit cycle |
| 1,1,2-trichloroethane     | Mg/l | Grab | Permit cycle |
| 2,4,6-trichlorophenol     | Mg/l | Grab | Permit cycle |
| Vinyl chloride            | Ug/l | Grab | Permit cycle |

<sup>1</sup>In the event continuous temperature measurement systems are temporarily inoperative, an alternate means of measurement or calculating providing equivalent information may be used during this period.

\*See Ocean Plan Appendix I for definitions.

<sup>3</sup>Permit cycle is once during life of permit or during permit renewal process.

<sup>4</sup>For each new chemical added to the discharge that could potentially cause toxicity, Discharger shall conduct toxicity testing to determine the effluent concentration for that chemical or chemical product necessary to assure compliance with toxicity effluent limits in this Order. Approved toxicity testing methodologies are described in the Ocean Plan. The results of these toxicity tests shall be submitted to the Executive Officer prior to discharge of added chemicals or chemical products. In addition, the Discharger shall make every reasonable effort to schedule quarterly toxicity monitoring to coincide with the highest potential for toxicity in the effluent (considering plant operations and addition of potentially toxic chemicals). Monitoring reports shall include a discussion of the efforts made to comply with this requirement. Chronic toxicity tests shall be conducted pursuant to Appendix III-1 of the Ocean Plan.

### Effluent Sampling Applied to In-Plant Waste Streams

A sampling station shall be established for each in-plant or internal waste discharge and shall be located where representative samples of the discharge can be obtained. The purpose of this monitoring is to assure that the internal waste streams do not contribute to violations of the effluent limitations in Order No. R3-2004-0028. The following shall constitute the effluent monitoring program:

| Parameter   | Units | Discharge | Type of Sample | Minimum Frequency of Analysis  |
|---|-------|-----------|----------------|--|
| Flow  | MGD   | Internal  | Recorded       | Flow meter, pump operating data, or estimated                              |
| pH  | -     | Internal  | Grab           | Once during any chemical cleaning event, otherwise weekly when discharging |
| Grease & Oil  | mg/l  | Internal  | Grab           | Weekly when discharging  |
| Suspended Solids  | mg/l  | Internal  | Grab           | Weekly when discharging  |
| Arsenic, Copper, Cadmium, Chromium, Iron, Lead, Mercury, Nickel, Selenium, Silver, Zinc | mg/l  | Internal  | Grab           | Weekly when discharging  |

### Receiving Water Monitoring

The Ocean Plan states: "Waste discharges to the ocean must be essentially free of substances that will accumulate to toxic levels in marine waters, sediments, or biota." The Discharger shall submit a sediment and tissue monitoring plan proposal designed to assure compliance with this standard twelve months prior to initiation of discharges authorized by Order No. R3-2004-0028, and shall implement sediment and tissue monitoring as directed by the Executive Officer, including sample collection frequency, station locations, and analytical methods.

### Reporting

The Discharger shall comply with the following:

1. All reports submitted to the Regional Board shall be in hard copy format and digital format using Microsoft Word, Microsoft Excel, or Adobe PDF format, as directed by the Executive Officer. At his discretion, the Executive Officer may direct the Discharger to submit reports in digital format only.
2. Quarterly monitoring reports shall include influent and effluent monitoring data, shall list all violations on a cover transmittal page, and shall discuss the compliance record and corrective actions taken or which may be needed to bring the discharge into full compliance, and shall be submitted by the 20th day of the month following the calendar quarter.

3. Annual reports shall be submitted by February 28th of each year. The report shall contain both tabular and graphical summaries of all historical monitoring data collected obtained during the previous year. The report shall list the laboratories used by the discharger to monitor compliance with effluent limits and provide a summary of performance relative to section B, General Monitoring Requirements.
  
4. Discharger shall comply with this, including any modifications to the Monitoring and Reporting Program by the Executive Officer. The Executive Officer may not diminish the requirements, but may require more frequent monitoring or reporting. After receiving the detailed description of internal waste streams described in Finding 13 of Order R3-2004-0028, the Executive Officer may add additional constituents and/or increase monitoring frequencies required by this Monitoring and Reporting Program.

ORDERED BY \_\_\_\_\_  
Roger W. Briggs, Executive Officer

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April 2, 2004